AMENDMENTS TO THE CLAIMS

   This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

   1. (currently amended): A method for determining a production parameter of an

injection molding, in an event of implementation of injection molding using a mold having a

plurality of resin inflow conduits to cavity, by combination of a numerical analysis method for

calculating injection molding process and a computer-aided optimization method

   wherein said production parameter determines time-sequentially an inflow of resin

material from resin inflow conduits into said cavity ~~by combination of a numerical analysis~~

~~method for calculating injection molding process and a computer-aided optimization method~~

   wherein said production parameter is determined in order to control a mold clamping

force required for injection molding,

   wherein said production parameter is a parameter to control the action of valves gates

positioned in a plurality of resin inflow conduits, and

   wherein said production parameter is optimized under a condition that at least one of said

valve gates is opened at any spot of time during a filling stage.

   2-10. (canceled).

   11. (currently amended): The method for determining a production parameter of an

injection molding according to ~~Claim 10~~Claim 1, wherein said valve gate is located at each of a

plurality of resin inflow conduits, one valve gate is selected as a timing regulation gate, while

actions of other gates are arbitrarily determined, and the action of said timing regulation gate is

constrained so that at least one valve gate is opened at any spot of time.

12. (canceled).

13. (currently amended): The method for determining a production parameter of an

injection molding according to Claim 1, wherein said production parameter is determined in

order to control weld line occurrence, and

wherein target areas for controlling weld line occurrence is divided into a plurality of

areas, quantity of weld line occurrence in each area is weighted, and thus weighted quantity of

weld line occurrence is summed to obtain a weld line evaluation value, and the weld line

evaluation value thus obtained is used to induce said weld line occurrence to a specified area or

to avoid said weld line occurrence from a specified area.

14. (original): The method for determining a production parameter of an injection

molding according to Claim 13, wherein said control of weld line occurrence is a control of

positions of occurrence.

15. (original): The method for determining a production parameter of an injection

molding according to Claim 13, wherein a state of weld line occurrence in a specified area of

said molding is evaluated when determining said production parameter.

16. (canceled).

17. (original): The method for determining a production parameter of an injection

molding according to Claim 13, wherein determination of said production parameter is

conducted by adopting auxiliary objects adding to said control of weld line occurrence.

18. (currently amended): A method for producing an injection molding, comprising the

steps of: in an event of conducting injection molding using a mold having a plurality of resin

inflow conduits to a cavity,

(1) obtaining determining a production parameter by combination of a numerical analysis

method for calculating injection molding process and a computer-aided optimization method,

wherein said production parameter which determines time-sequentially an inflow of resin

material from said resin inflow conduits into said cavity by combination of a numerical analysis

method for calculating injection molding process and a computer-aided optimization method,

wherein said production parameter is determined in order to control a mold clamping

force required for injection molding,

wherein said production parameter is a parameter to control the action of valves gates

positioned in a plurality of resin inflow conduits, and

wherein said production parameter is optimized under a condition that at least one of said

valve gates is opened at any spot of time during a filling stage; and

(2) conducting injection molding on the basis of the thus determined production

parameter while controlling time-sequentially said inflow of resin material from said resin inflow

conduit.

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19. (currently amended): An injection molding device comprising:

(1) a molding device main body which feeds resin material to a mold having a plurality of resin inflow conduits to a cavity through the resin inflow conduits~;

(2) a memory section which memorizes production parameters determined by combination of a numerical analysis method for calculating injection molding process and a computer-aided optimization method

wherein said production parameter is determined in order to control a mold clamping force required for injection molding,

wherein said production parameter is a parameter to control the action of valves gates positioned in a plurality of resin inflow conduits, and

wherein said production parameter is optimized under a condition that at least one of said valve gates is opened at any spot of time during a filling stage; and

(3) a control section which carries out injection molding while controlling said molding device main body on the basis of production parameters the thus determined and controlling time-sequentially said inflow of said resin material from said resin inflow conduits.

20. (currently amended): A computer readable medium having stored thereon instructions for enabling a computer to execute a process for determining production parameters, in the course of carrying out injection molding using a mold having a plurality of resin inflow conduits to a cavity, by combination of a numerical analysis method for calculating injection molding process and a computer-aided optimization method, wherein said production parameters

determine ~~which determines~~ time-sequentially the inflow of said resin material from said resin inflow conduits into said cavity ~~by combination of a numerical analysis method for calculating injection molding process and a computer-aided optimization method~~,

wherein said production parameter is determined in order to control a mold clamping force required for injection molding,

wherein said production parameter is a parameter to control the action of valves gates positioned in a plurality of resin inflow conduits, and

wherein said production parameter is optimized under a condition that at least one of said valve gates is opened at any spot of time during a filling stage.